

MARK-UP SHOWING CHANGES

Specification

- On page 1, the paragraph on lines 4 - 6 was amended as follows:

This application is a continuation of 08/995,889, filed December 22, 1997, now U.S. Patent No. 5,924,664, which in turn is a continuation-in-part of Provisional U.S. Application Ser. No. 60/040,972, filed Mar. 12, 1997 in the name of the same inventors and bearing the same title.

- On page 8, the paragraph on lines 11 - 19 was amended as follows:

In the preferred embodiment, upper arm 2, lower arm 17, and mounting bracket 3 thereby form a wedge-shaped box whose surfaces are made up of the top of upper arm 2, the base of lower arm 17, and the overlapping sides of upper arm 2 and lower arms 17, and whose edges are defined by first pivot rod 7, fourth pivot rod 18, and bolt 14. From the side, as shown in FIG. 2, the system resembles a triangle, which can be pivoted to permit the raising or lowering of shelf bracket 4 relative to mounting bracket 3, and hence the top of the desk 36. As upper arm 2 pivots about first pivot rod 7, lower arm 17 both pivots about bolt 14 and slides forward or backward relative to it, via first and second openings 16 and 20.

- The paragraph beginning on page 8, line 20 and continuing through page 9, line 5 was amended as follows:

Curved ends 21 of side arms 5 contact first sides 24 of stopping means 23. This prevents side arms 5 from sliding rearwards, relative to bolt 14, past the point where side arms 5 contact the first sides 24 of the stopping means 23. When first sides 24 have a concave shape, this point varies as side arms 5 are pivoted around bolt 14. By positioning

stopping means 23 at a specific distance behind bolt 14, and giving first sides 24 of stopping means 23 a particular degree of curvature (which may be easily determined by one of ordinary skill in the art), shelf bracket 4 can be kept at a consistent angle relative to the ground, regardless of the height of shelf bracket 4 relative to mounting bracket 3.

► The paragraph beginning on page 10, line 10 and continuing through page 11, line 9 was amended as follows:

If stopping means 23 is movable, its position may be adjusted by a variety of means, such as with a sliding track with a locking mechanism, or with a rack and pinion mechanism, or with a pneumatic cylinder. One preferred means, however, is by way of a screw-type mechanism, as shown in FIGS. 7-9. Knob 27, which passes through support 30, is connected by threaded bolt 28 to stopping means 23. Threaded bolt 28 is attached to stopping means 23 by being screwed into threaded aperture 29 in stopping means 23. As knob 27 is turned in one direction, threaded bolt 28 is also turned; because stopping means 23 and threaded aperture 29 cannot also turn (because of geometric constraints within mounting bracket 3), the turning of threaded bolt 28 in one direction forces it to unscrew from threaded aperture 29, pushing stopping means 23 towards the front of mounting bracket 3. The turning of knob 27 in the other direction has the opposite effect. The degree to which threaded bolt 28 can be screwed or unscrewed from the threaded aperture 29 (and hence the degree to which stopping means 23 may be moved) may be governed by the use of mechanical stopping means as shown in FIGS. 8 and 9. FIG. 9 shows a top view of the mechanism. As may be seen from the drawing, stop rod 42 runs parallel to center piece 38 of stopping means 23. FIG. 8 shows a side view of mounting bracket 3 with stopping means 23. Stop rod 42 is fixed in place and is vertically

positioned in the middle of ends 37 of stopping means 23, running through ends 37 via third openings 43 (only one shown). As stopping means 23 moves back and forth relative to mounting bracket 3 from the turning of knob 27, third openings 43 move relative to stop rod 42. Once stop rod 42 reaches an end of third openings 43, stopping means 23 cannot move any further in that direction. The dotted lines in FIG. 7 show stopping means 23 in a forwardly displaced position compared to the position shown in the solid lines.

- The paragraph beginning on page 11, line 21 and continuing through page 12, line 6 was amended as follows:

Sliding bracket 46 is attached to setting bracket 47 (shown in more detail in FIG. 16) by means of attachment pin 48 which passes through opening 49 in setting bracket 47 and openings 63 in sliding bracket 46 (shown in FIG. 15). Setting bracket 47[49] is attached to mounting bracket 3 by means of attachment rods 50 and 51, which pass through holes 52 (see FIG. 16). Opening 49 is angled so that as setting bracket 47 is moved from side to side relative to mounting bracket 3, attachment pin 48, which must slide within the confines of opening 49 is forced to move either forward or backward, which in turn forces sliding bracket 46 and stopping means 23 to also move forward or backward.

- The paragraph on page 13, lines 14 - 19 was amended as follows:

When the handle ~~63~~ of adjustment lever 56 is moved by the user, adjustment lever 56 pivots around pin 58. This in turn forces movement of slot 62 relative to mounting bracket 3. Because of the attachment of setting bracket 47a to adjustment lever 56 by means of pin 61 through slot 62, movement of slot 62 forces lateral movement of setting

bracket 47a along attachment rods 51. As discussed above, this in turn provides forward and backwards movement of stopping means 23.

- The paragraph beginning on page 13, line 20 and continuing through page 14, line 2 was amended as follows:

Depending upon the exact mechanism used to adjust the stopping means, such adjustment can be easier or more difficult for the user. For example, if the stopping means can only be adjusted using a screwdriver (instead of by the mechanisms described above) it will be less convenient to adjust. This arrangement may be desirable for some applications, where it is sought to minimize the number of adjustments which can be made by the immediate user.

- The paragraph on page 14, lines 2- 16 was amended as follows:

The primary purpose behind adjusting the stopping means is to adjust the angle of keyboard shelf 4 relative to the ground. The farther forward stopping means 23 is positioned, the greater the elevation of the front of shelf bracket 4, and vice-versa. An alternative means for adjusting the horizontal orientation of shelf bracket 4 which is particularly useful when stopping means 23 is not adjustable is by means of conventional locking knob 31, as shown in FIG. 1. Bolt 14 is screwed into locking knob 31. When locking knob 31 is turned, bolt 14 is prevented from also turning by the interaction of its square end with lateral opening 16. The threaded connection between locking knob 31 and bolt 14 forces locking knob 31 to move in towards spacer 41, forcing side arm 5 and lower arm 17 into closer contact with spacer 41. This eventually tightens the system to the point where neither rotation or lateral movement of lower arm 17 or side arm 5 about bolt 14 is possible. To facilitate the "squeezing" of lower arm 17, its rearward sections

around and adjacent to openings 20 do not have a bottom section connecting them, unlike at the its forward sections around and adjacent to fourth pivot rod 18.

► The paragraph beginning on page 14, line 17 and continuing through page 15, line 2 was amended as follows:

When locking knob 31 is used, the angle of shelf bracket 4 can be adjusted by tilting the front of shelf bracket 4 up, pulling side arm 5 away from stopping means 23 and locking shelf bracket 4 into this position by tightening locking knob 31. By "locking" side arm 5 at a position where it is pulled away from stopping means 23, the angle of shelf bracket 4 can be altered from what would be permitted by the use of stopping means 23. The use of locking knob 31 is preferred when only one side arm 5 and one stopping means 23 are used, and when stopping means 23 cannot be moved. Locking knob 31 can also be used in conjunction with a movable stopping means.

Claims

15 The auxiliary shelf mechanism of claim 1, wherein the upper arm is connected to the mounting bracket by a first pivot rod at the first pivot point, and the shelf bracket by a second pivot rod at the second pivot point,; and further wherein the side arm is connected to the shelf bracket by a third pivot rod at the third pivot point, and to the mounting bracket by a bolt at the fourth pivot point.

18. The auxiliary shelf mechanism of claim 17, wherein the side arm being fixed into position relative to the mounting bracket ~~with~~ is with a locking knob.

53. The articulating arm mechanism of claim 27, wherein:

- (a) there are two side arms;
- (b) there are two stopping means, optionally connected to one another;